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TITLE: METHOD FOR FABRICATING SEMICONDUCTOR DEVICE

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ABSTRACT:
PURPOSE: To prevent the variation of or increase in characteristics of elements
of a semiconductor device by executing an oxygen treatment of metal oxide
dielectric substance forming a dielectric element interposed between two
electrodes in an oxygen plasma atmosphere, ozone plasma atmosphere, or an
atmosphere containing both in order to lower the temperature of the processing.

CONSTITUTION: Lead titanate and zirconate film 109 that is metal oxide
dielectric substance is formed on a MOS semiconductor substrate 101 between two
electrodes. Next, this lead titanate and zirconate film 109 is heated for
oxyzen processing at 400°C in a gaseous oxygen plasma atmosphere. The use
of gaseous ozone plasma in place of the gaseous oxyzen plasma can last an
effect equal to or greater than that by gaseous oxyzen plasma. Next, a

platinum film is formed as an electrode 110 on the upper layer of a capacitive
element using the lead titanate and zirconate film 109 by sputtering. After
that, silicon dioxide film is formed as interlayer insulating film 111 by the
CVD, and further aluminum film is formed as wiring layer 112 by sputtering.

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